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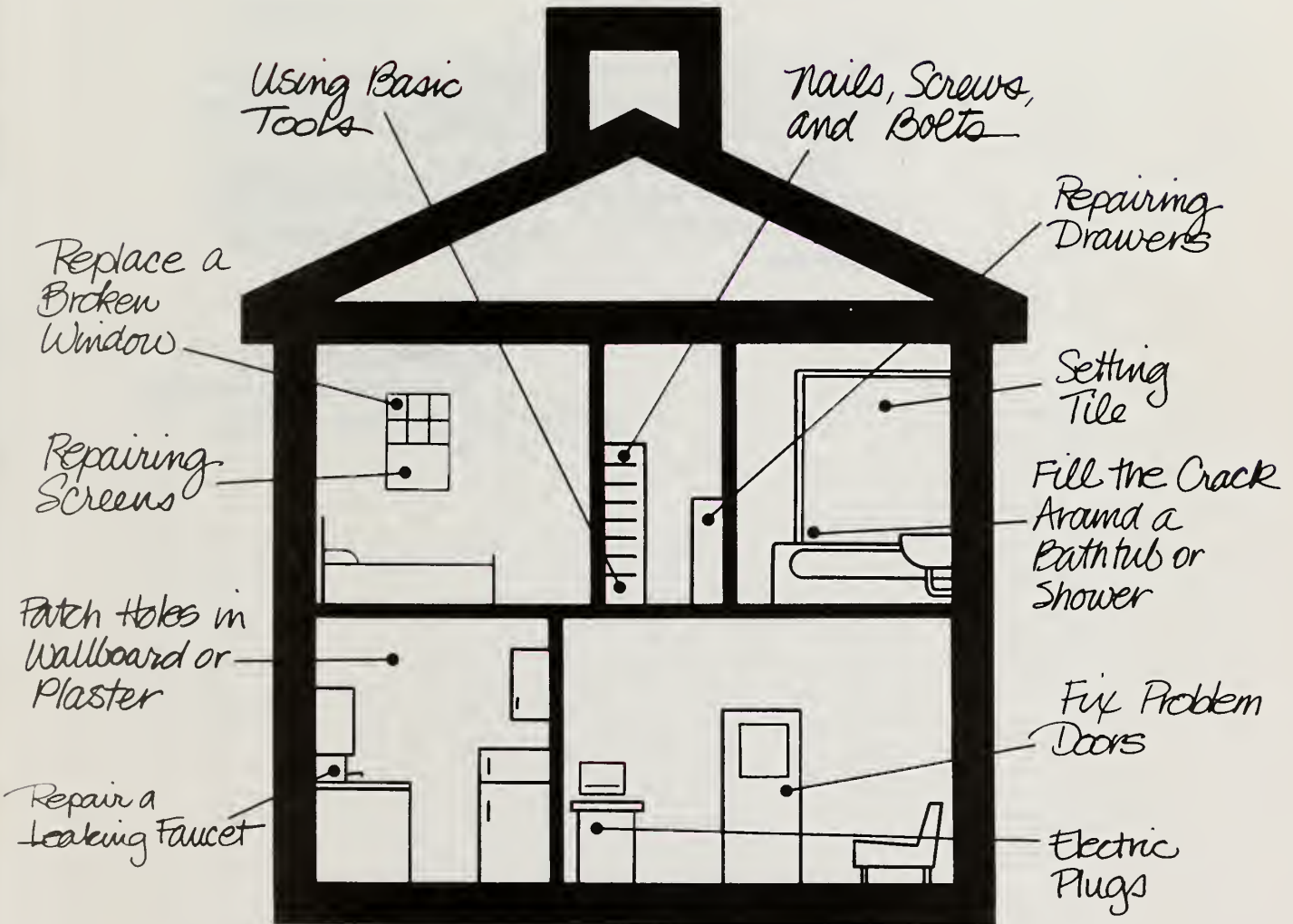
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Simple Home Repairs . . . Inside

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This publication has been prepared in easy, step-by-step sections to help even the most inexperienced person do simple home repair jobs or teach others.

Although this series of directions has been grouped in one publication, each section is designed so that it can be easily reproduced as a separate leaflet for teaching purposes.

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Extension Service, USDA

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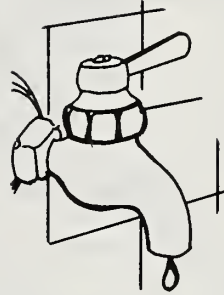
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REPAIR A LEAKING FAUCET

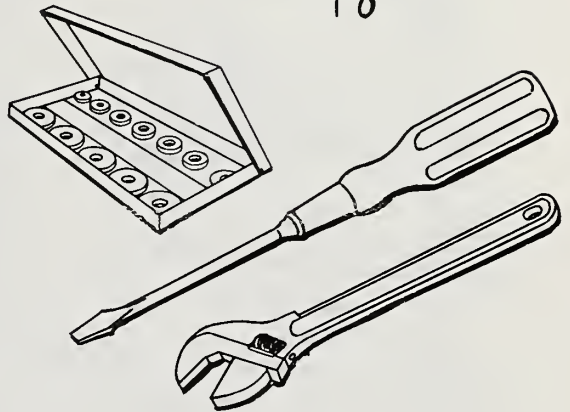
YOUR PROBLEM:

- Leaking faucets waste water.
- Dripping faucet may cause a spot in the sink.
- Constant dripping is annoying.



WHAT YOU NEED

- A box of assorted size washers, unless you know the size.
- A screwdriver
- An adjustable wrench.



HOW-TO

1. First turn off the water at the shut-off valve nearest to the faucet you are going to repair. Then turn on the faucet until the water stops flowing. (Fig. 1)
2. Loosen packing nut with wrench. (Fig. 2) (Most nuts loosen by turning counter-clockwise.) Use the handle to pull out the valve unit. (Fig. 3)
3. Remove the screw holding the old washer at the bottom of the valve unit. (Fig. 4)

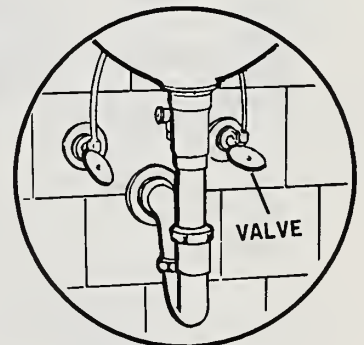


Fig. 1



Fig. 2



Fig. 3

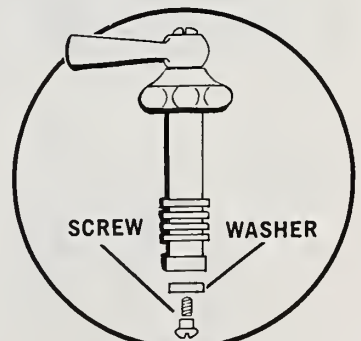


Fig. 4

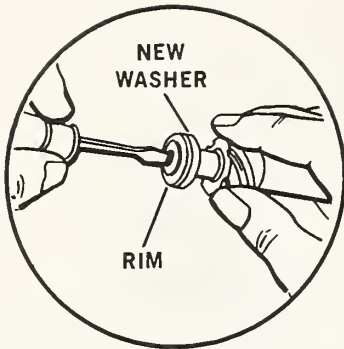


Fig. 5

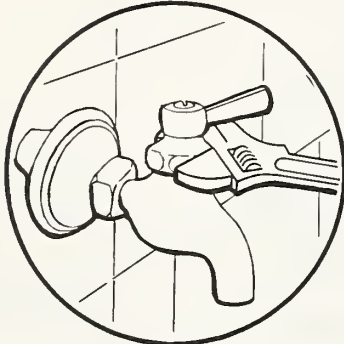


Fig. 6

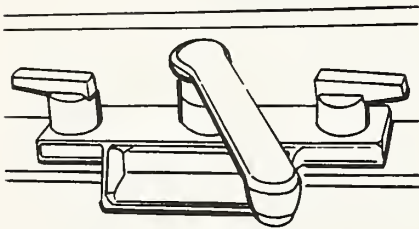


Fig. 7

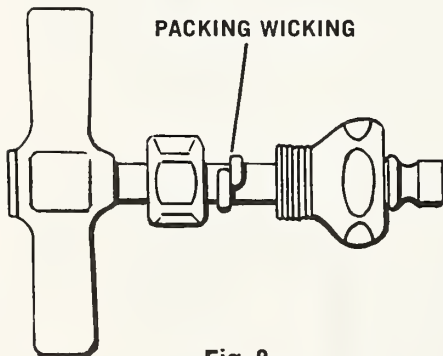


Fig. 8

4. Put in new washer and replace screw. (Fig. 5)
5. Put valve unit back in faucet. Turn handle to the proper position.
6. Tighten the packing nut. (Fig. 6)
7. Turn on the water at the shut-off valve.

Faucets may look different, but they are all built about the same. Mixing faucets, which are used on sinks, laundry tubs, and bathtubs are actually two separate units with the same spout. You'll need to repair each unit separately. (Fig. 7)

Is water leaking around the packing nut? Try tightening the nut. If it still leaks, remove the handle and loosen the packing nut. If there is a washer under it, replace the washer. If there's no washer, you may need to wrap the spindle with "packing wicking". (Fig. 8) Then replace packing nut and handle, and turn water back on at the shut-off valve.

YOUR REWARD:

- Lower water costs.
- Spots in sink prevented.
- You save money by doing the job yourself.



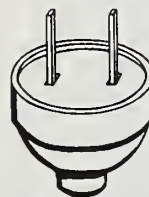
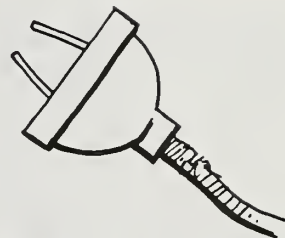
ELECTRIC PLUGS—Repair or Replace

YOUR PROBLEM

- Lamps or appliances do not work right.
- A damaged plug is dangerous.
- It's hard to hire help for small repairs.

WHAT YOU NEED

- New plug—if your old one cannot be used. (Buy one with a UL label)
- Screwdriver
- Knife



HOW-TO

1. Cut the cord off at the damaged part. (Fig 1.)
2. Slip the plug back on the cord. (Fig 2.)
3. Clip and separate the cord. (Fig. 3)
4. Tie Underwriters' knot. (Fig. 4)
5. Remove a half-inch of the insulation from the end of the wires. **Do not cut any of the small wires.** (Fig. 5)

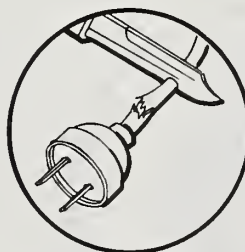


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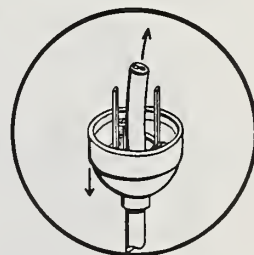


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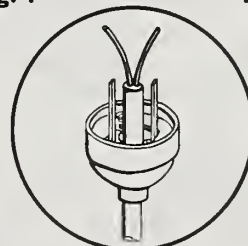


Fig. 3



Fig. 5

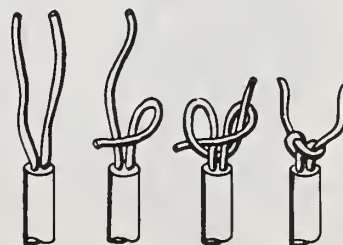


Fig. 4



Fig. 6

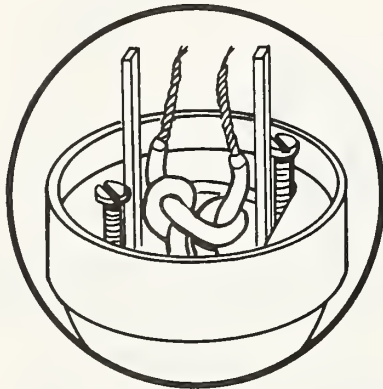


Fig. 7

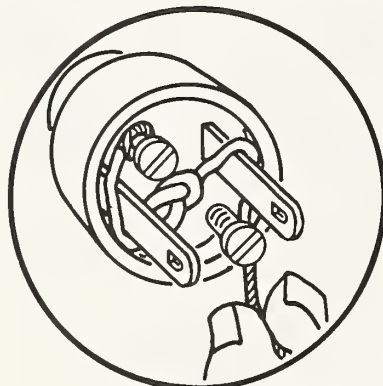


Fig. 8

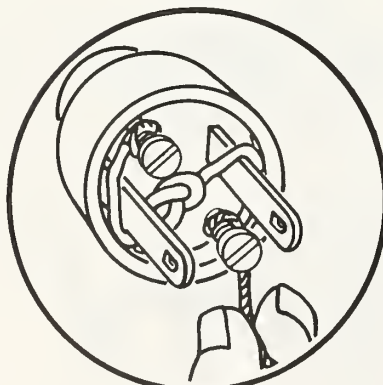


Fig. 9



Fig. 10



Fig. 11

6. Twist small wires together, clockwise. (Fig. 6)
7. Pull knot down firmly in the plug. (Fig. 7)
8. Pull one wire around each terminal to the screw. (Fig. 8)
9. Wrap the wire around the screw, clockwise. (Fig. 9)
10. Tighten the screw. Insulation should come to the screw but not under it. (Fig. 10)
11. Place insulation cover back over the plug. (Fig. 11)

YOUR REWARD

- The appliance or lamp is back in working condition.
- You have eliminated a possible cause of a fire or shock.
- You have saved money by doing the repair yourself.



FILL THE CRACK AROUND BATHTUB OR SHOWER

YOUR PROBLEM

There's a crack between the bathtub and wall. It should be filled to keep water out. Water can damage the walls and house frame. The crack catches dirt and looks bad.

WHAT YOU NEED

There are two types of waterproof crack filler. Choose one:

1. Waterproof grout
2. Plastic sealer

Grout comes in powder form. It must be mixed with water. You can mix it in small amounts at a time. Grout costs less than plastic sealers.

Plastic sealer comes in a tube. It looks like toothpaste. It is easier to use than grout, but costs more. Read directions on the package before you begin your project.

HOW-TO

Prepare the surface

1. Remove the old crack filler from the crack. (Fig 1.)
2. Wash the surface to remove soap, grease, and dirt. (Fig 2.)
3. Dry the surface well before you make repairs. (Fig 3.)

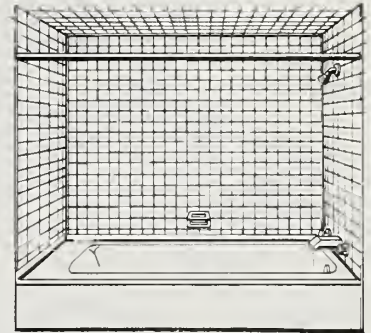


Fig. 1



Fig. 2



Fig. 3



Fig. 4

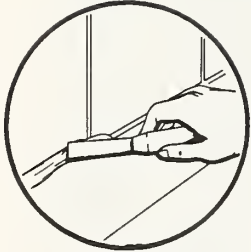


Fig. 5

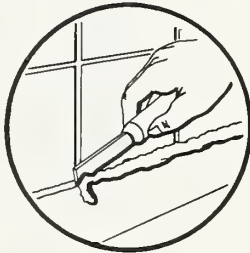


Fig. 6

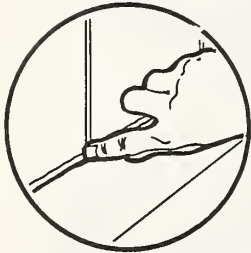


Fig. 7



Fig. 8

Using grout

Put a small amount of grout in a bowl. (Fig. 4) Slowly add water and mix until you have a thick paste. Put this mixture in the crack with a putty knife. (Fig. 5) Press in to fill the crack. (Fig. 6) Smooth the surface. (Fig. 7)

Wipe excess grout from the wall and tub before it gets dry and hard. Let the grout dry well before anyone uses the tub.

Empty any left-over grout mixture. (Not down the drain!) Wash your bowl and knife before grout dries on them.

Using plastic sealer

You can squeeze plastic sealer from the tube in a ribbon along the crack. Use a putty knife or spatula to press it down and fill the crack. Smooth the surface. Work fast! Plastic sealer dries in a very few minutes. Keep the cap on the tube when you're not using it. (Fig. 8)

YOUR REWARD

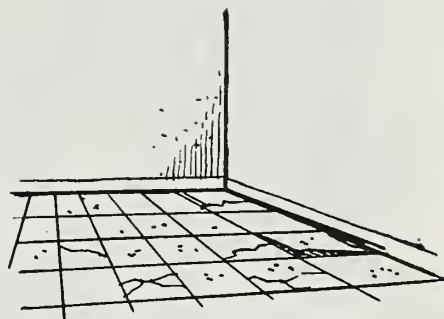
- A better looking bathroom.
- Prevent water damage to the house.
- You save money by doing the job yourself.



SETTING TILE

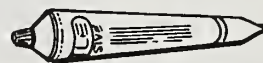
YOUR PROBLEM

- Tile have come loose from walls or floor.
- Tiles are damaged, need replacing.
- It's hard to get help to do small repairs.



WHAT YOU NEED

- Something to mix in.
- Tile adhesive for the kind of tile you have.
- Paint brush or putty knife.
- Knife or saw.
- New tile (if needed.)
- Grout—for ceramic or plastic tile.



HOW-TO—FLEXIBLE TILE

1. Remove loose or damaged tile. A warm iron will help soften the adhesive. (Fig. 1.)
2. Scrape off the old adhesive from the floor or wall. Also from the tile if you're to use it again. (Fig. 2)
3. Fit tiles carefully. Some tile can be cut with a knife or shears, others with a saw. Tile is less apt to break if it is warm. (Fig. 3)



Fig. 1



Fig. 2



Fig. 3



Fig. 4

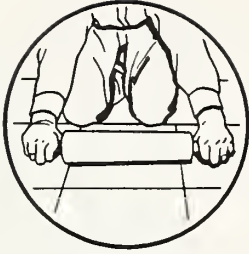


Fig. 5

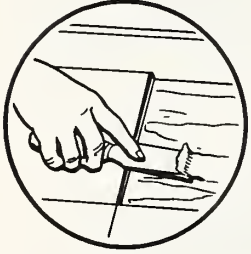


Fig. 6



Fig. 7



Fig. 8

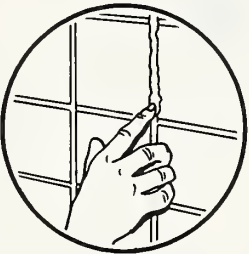


Fig. 9



Fig. 10



Fig. 11

4. Spread adhesive on the floor or wall with a paint brush or putty knife. (Fig. 4)
5. Wait until adhesive begins to set before placing the tile. Press tile on firmly. (A rolling pin works well.) (Fig. 5)

FOR CERAMIC OR PLASTIC TILE

1. Scrape off the old adhesive from the floor or wall. Also from old tile if you use it again. (Fig. 6)
2. If you are using new tile and need to fit it, mark it carefully to size. Cut it with a saw. You can make straight cuts on tile by scoring it first. Then it will snap off if you press it on the edge of a hard surface. (Fig. 7)
3. Spread adhesive on the wall or floor and on the back of the tile. Press tile firmly into place. (Fig. 8)
4. Joints on ceramic tile should be filled with grout after the tile has firmly set. Mix grout (powder) with water to form a stiff paste. Press the mixture into the joints with your fingers. Smooth the surface. (Fig. 9)
5. Carefully remove excess grout from the tile surface before it dries. (Fig. 10)
6. Empty excess grout mixture. (Not down the drain!) Clean up surfaces and tools. (Fig. 11)
7. Let grout dry overnight before it gets wet again.

YOUR REWARD

- A better looking place to live.
- Larger and more costly repairs prevented later.
- You save money by doing the job yourself.



REPAIRING SCREENS

YOUR PROBLEM

- Insects come in through holes in screens.
- Small holes tend to become larger.
- New screens cost money.
- Help is hard to get.

WHAT YOU NEED

- Screening or ready-cut screen patches
- Shears
- A ruler or small block of wood with a straight edge.
- Fine wire, or nylon thread.

HOW-TO

1. Trim the hole in the screen to make smooth edges. (Fig 1.)
2. Cut a rectangular patch an inch larger than the hole.
3. Remove the three outside wires on all four sides of the patch. (Fig. 2)
4. Bend the ends of the wires. An easy way is to bend them over a block or edge of a ruler. (Fig. 3)

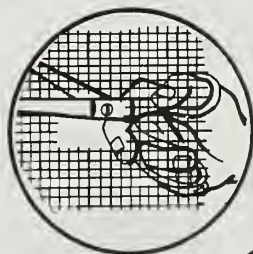
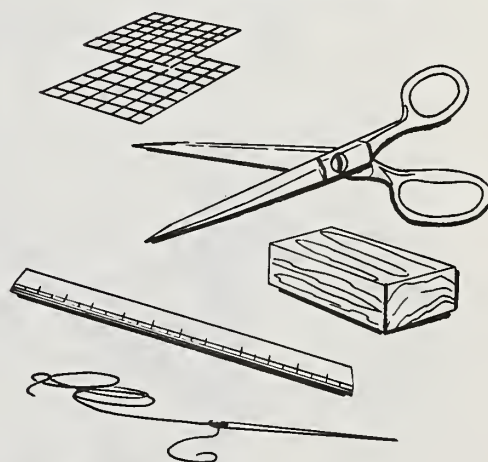
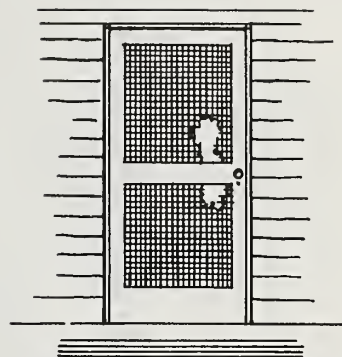


Fig. 1

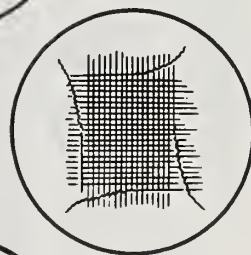


Fig. 2

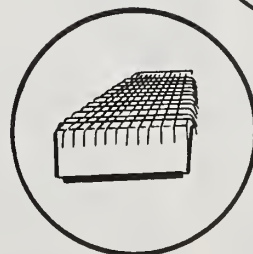


Fig. 3

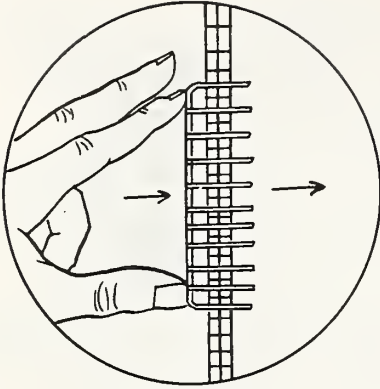


Fig. 4

5. Put the patch over the hole from the outside. Hold it tight against the screen so that the small, bent wire ends go through the screen. (Fig. 4)
6. From inside, bend down the ends of the wires toward the center of the hole. You may need someone outside to press against the patch while you do this. (Fig. 5)

Mending—You can mend small holes by stitching back and forth with a fine wire or a nylon thread. Use a matching color. (Fig. 6)

YOUR REWARD

- Keeps insects out.
- The house looks better.
- You save money by doing the job yourself.

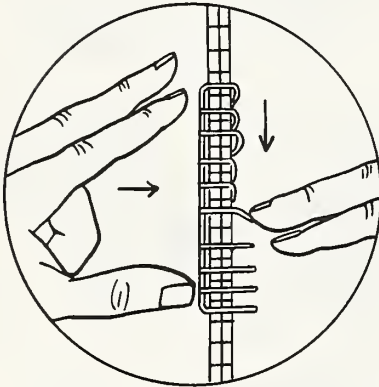


Fig. 5

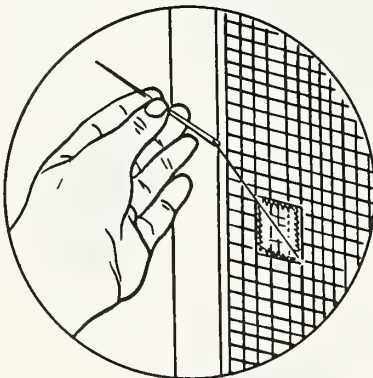


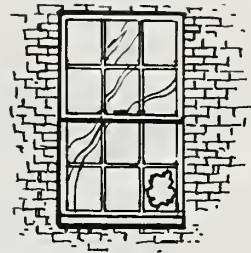
Fig. 6



REPLACE A BROKEN WINDOW

YOUR PROBLEM

- A window is broken.
- Heat is lost around window panes where putty is missing or dried out.



WHAT YOU NEED

- Window glass—correct size
- Putty or glazing compound
- Putty knife
- Hammer
- Pliers
- Glazier points



HOW-TO

1. Work from the outside of the frame. (Fig. 1)
2. Remove the broken glass with pliers to avoid cutting your fingers. (Fig. 2)
3. Remove old putty and glazier points. Pliers will be helpful to do this. (Fig. 3)
4. Place a thin ribbon of putty in the frame. (Fig. 4)
5. Place glass firmly against the putty. (Fig. 5)



Fig. 1



Fig. 2



Fig. 3

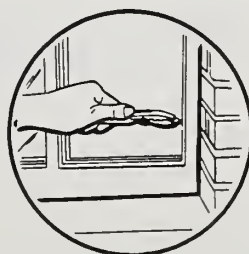


Fig. 4

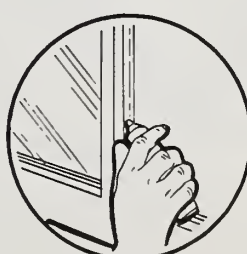


Fig. 5



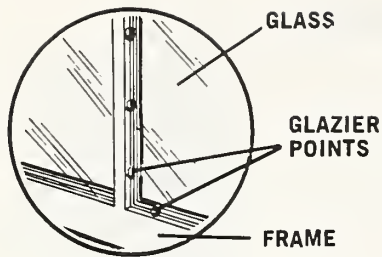


Fig. 6

6. Insert glazier points. Tap in carefully to prevent breaking the glass. Points should be placed near the corners first, and then every 4 to 6 inches along the glass. (Fig. 6)
7. Fill the groove with putty or glazing compound. Press it firmly against the glass with putty knife or fingers. Smooth the surface with the putty knife. The putty should form a smooth seal around the window. (Fig. 7)

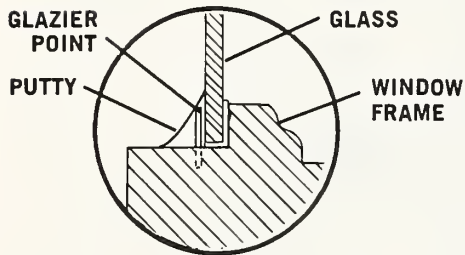


Fig. 7

YOUR REWARD

- Rain, cold, dust and insects are kept out.
- The house looks better.
- You save money by doing the job yourself.



PATCH HOLES IN WALLBOARD OR PLASTER

YOUR PROBLEM

- There's a hole in the wall.
- There's a crack in the wall.



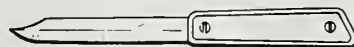
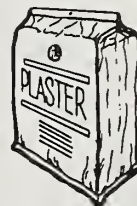
WHAT YOU NEED

- Choose one of the two types of patching compounds—

Spackling compound is convenient for small jobs but is more expensive. It can be bought as a powder or ready-mixed.

Patching plaster can be bought in larger packages and costs less. Both spackling powder and patching plaster need to be mixed with water.

- Putty knife
- Knife
- Sandpaper—medium grit
- Old cloth or a paint brush



HOW-TO

1. Remove any loose plaster. With a knife, scrape out plaster from the back edges of the crack until the back of the crack is wider than the front surface. (Fig. 1)
2. Thoroughly dampen the surface of the crack with a wet cloth or paint brush. (Fig. 2)



Fig. 1



Fig. 2

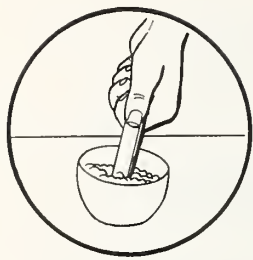


Fig. 3

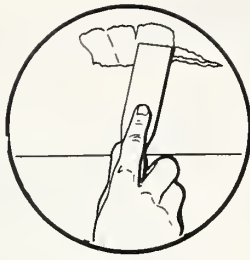


Fig. 4

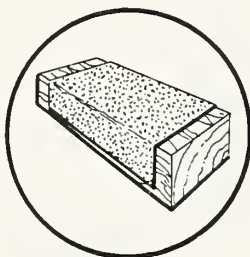


Fig. 5

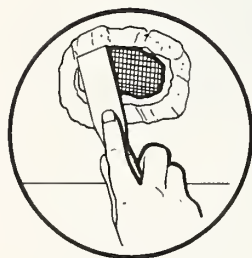


Fig. 6

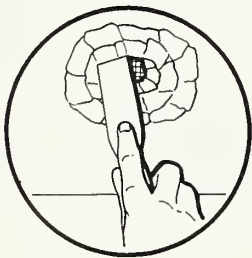


Fig. 7



Fig. 8

3. Prepare patching compound according to directions on package. Mix only a small amount the first time. (Fig. 3)
4. You can fill small holes with the patching mixture. Be sure to press the mixture until it completely fills the hole. Smooth the surface with the putty knife. (Fig. 4) After the patch has dried, you can sand it. Wrap the sandpaper around a small piece of wood. This makes the surface even. (Fig. 5)
5. Larger holes or cracks should be filled step-by-step. First, partly fill the hole. Let the patch dry. This gives a base for the final fill. Add a second batch of compound. Let dry. Sand until smooth. (Fig. 6)
6. You may need to fill in behind large holes with wadded newspaper. Start patching by working in from all sides. Let dry. Apply another layer around the new edge. Repeat until the hole is filled. After the patch has dried, sand until smooth. (Fig. 7)

NOTE:

If the walls have a textured surface, you'll want to make the patch match it while the plaster is still wet. You might need a sponge or comb to do the texturing. (Fig. 8)



FIX PROBLEM DOORS

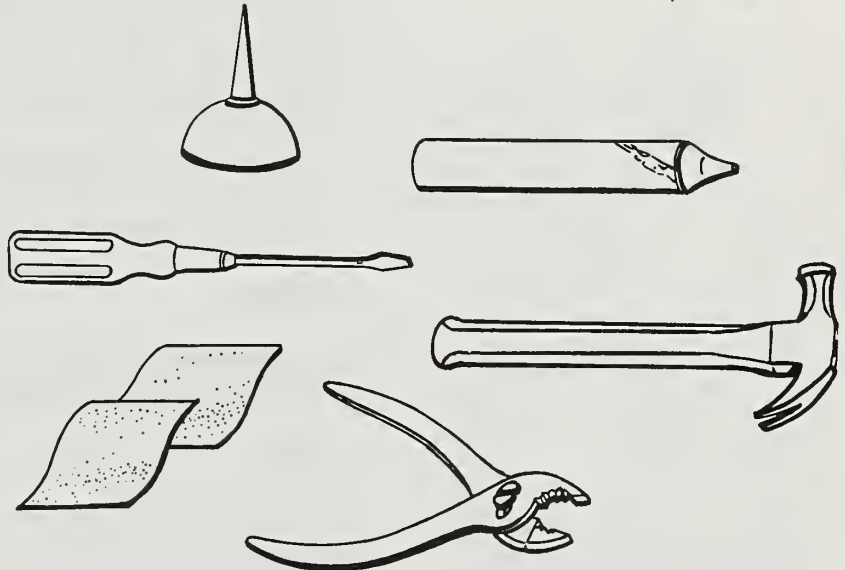
YOUR PROBLEM

- Doors squeak.
- Door knob rattles.
- Doors stick or drag.
- Door may not close because it strikes the frame.
- Lock may not catch.



WHAT YOU NEED

- Oil
- Graphite
- Screwdriver
- Hammer
- Sandpaper
- Pliers



HOW-TO

For Noise:

1. You can usually stop a door squeak by putting a few drops of oil at the top of each hinge. Move the door back and forth to work the oil into the hinge. If the squeaking does not stop, raise the pin and add more oil. (Fig. 1)
2. Noisy or squeaking locks should be lubricated with graphite. You can buy this at a hardware store. (Fig. 2)

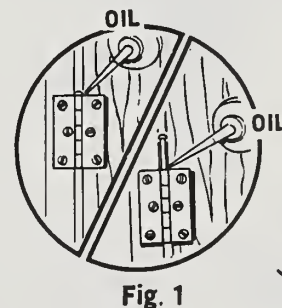


Fig. 1

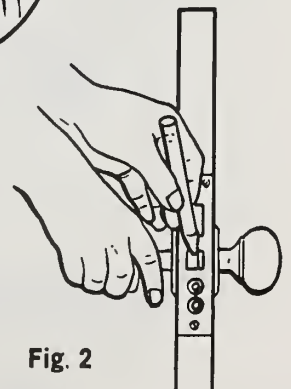


Fig. 2

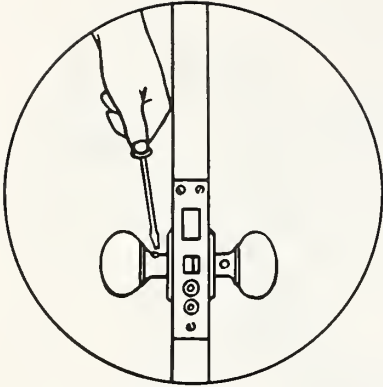


Fig. 3



Fig. 4

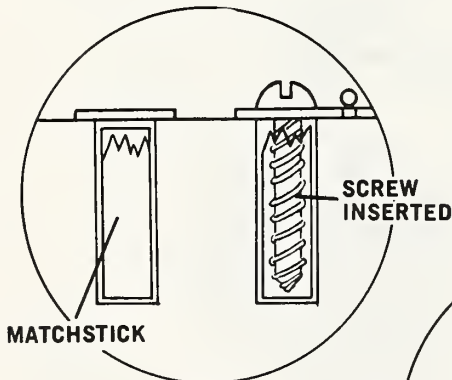


Fig. 5

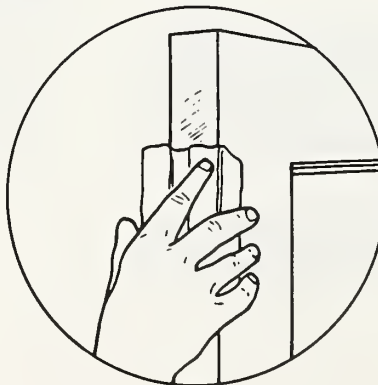


Fig. 6



Fig. 7

3. To stop the rattle in the knob, loosen the set-screw on the knob. (Fig. 3) Remove the knob. Put a small piece of putty or modeling clay in the knob. (Fig. 4) Put the knob back on. Push it on as far as possible. Tighten the screw.

For Sticking or Dragging Doors:

1. Tighten screws in the hinges. If screws are not holding, replace them, one at a time, with a longer screw. Or insert a matchstick in the hole and put the old screw back in. (Fig. 5)
2. Look for a shiny spot on the door where it sticks. Open and close the door slowly to find the spot. Sand down the shiny spot. Do not sand too much, or the door will not fit as tight as it should. (Fig. 6)
3. If the door or frame is badly out of shape, you may have to remove the door and plane down the part that drags. (Fig. 7)

NOTE:

Sand edges of the door before painting to prevent a paint build-up. This can cause the door to stick.

Locks:

If the lock is tight or won't turn, you may need to lubricate it with graphite.



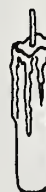
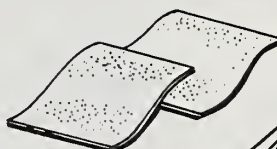
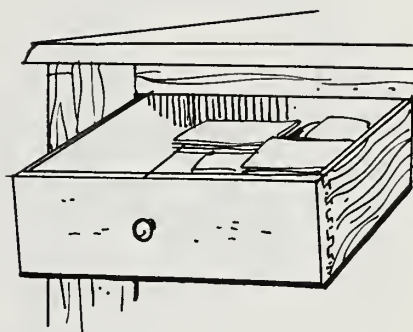
REPAIRING DRAWERS

YOUR PROBLEM

- Drawers stick.
- Drawers come apart.
- Handles or knobs are loose or broken.

WHAT YOU NEED

- Screwdriver
- Sandpaper
- Candle wax or paraffin



HOW-TO

For Handles and Knobs:

1. Tighten handles or knobs with screwdriver from the inside of the drawer. (Fig. 1)
2. You can buy knobs, or use small spools to replace lost knobs.

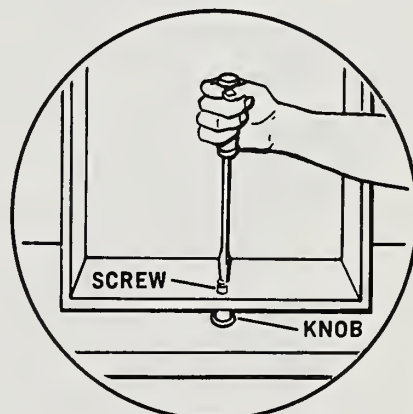


Fig. 1

For Sticking Drawers:

1. Remove the drawer. Look for shiny places on top or bottom edges or on the sides. (Fig. 2)
2. Sand down these shiny areas. Try drawer to see if it moves more easily. Repeat sanding if it still sticks. (Fig. 3)

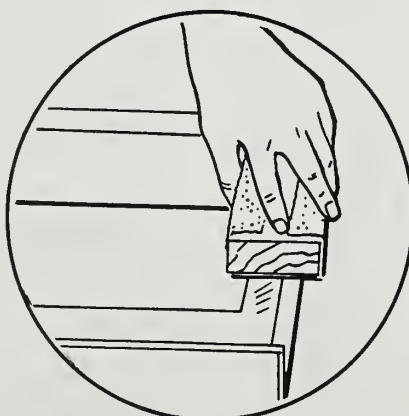


Fig. 3

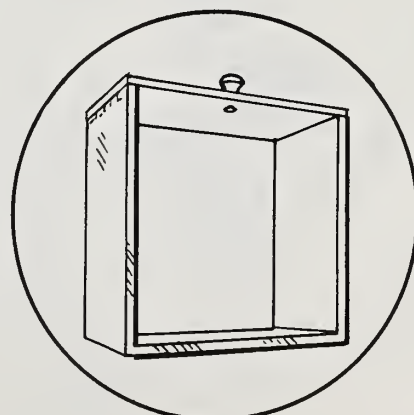


Fig. 2



Fig. 4

3. Rub the drawer and the frame, where they touch, with candle wax, paraffin, or soap. This makes drawers glide easier. This is important if drawers are usually filled with heavy items. (Fig. 4)

4. If glides are badly worn, the drawer may not close all the way. The drawer front strikes the frame. The drawer needs to be lifted. Remove it and insert two or three large smooth-head thumbtacks along the front of each glide. (Fig. 5)

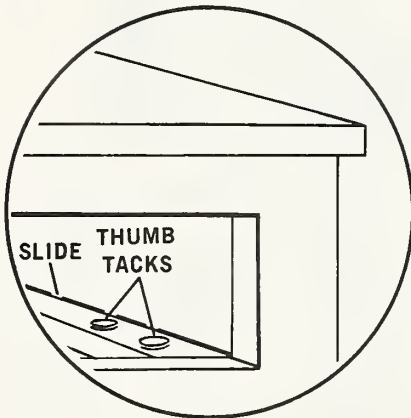


Fig. 5

5. Do drawers stick only in damp weather? When weather is dry, and drawers are not sticking, coat the unfinished wood with a penetrating sealer or with wax. (Fig. 6)

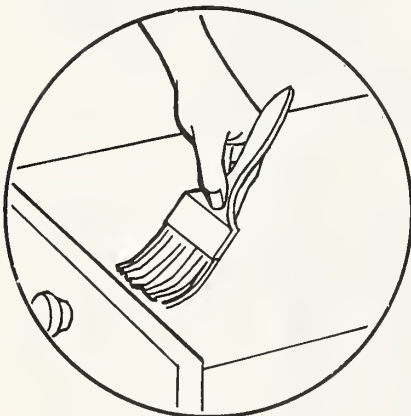


Fig. 6



USING BASIC TOOLS

HAMMER

A medium weight (12-13 ounce) claw hammer is good for general purposes.

- Hold a hammer near the end of the handle for more hitting power. To start a nail, hold it in place and tap it gently a few times until it is firmly set. Hit it straight in. (Fig. 1)
- To avoid hammer marks on the wood, use a nail set (Fig. 2) or another nail to drive a nail the last one-eighth inch into the wood.
- To remove a nail use claw end of hammer. Place a small block of wood under the head of the hammer to avoid marking the wood. (Fig. 3)

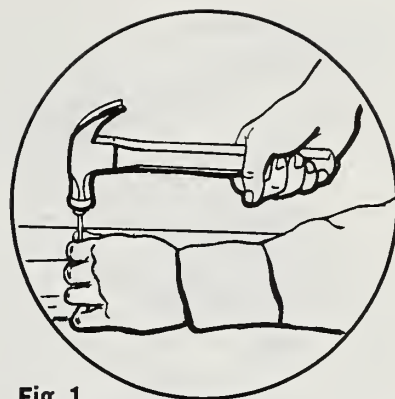


Fig. 1

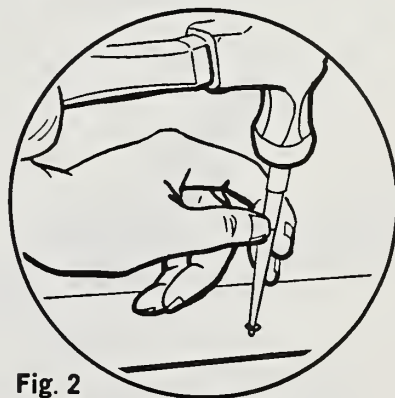


Fig. 2

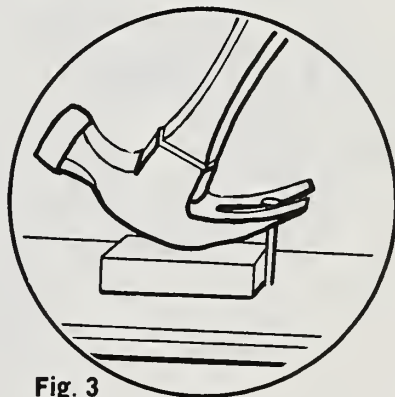


Fig. 3

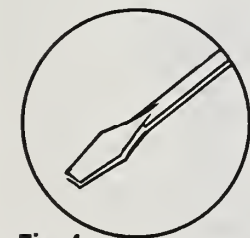
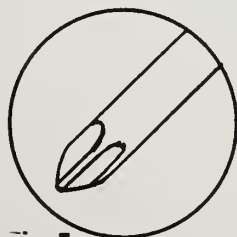


Fig. 4



You need two types of screwdrivers for household repairs: **Straight blade** (Fig. 4), and **Phillips** (Fig. 5). Both come in various sizes. The blade of the screwdriver should fit the slot in the screw. (Fig. 6)

- When using the screwdriver, push against the head of the screw as you turn it. (Fig. 7)

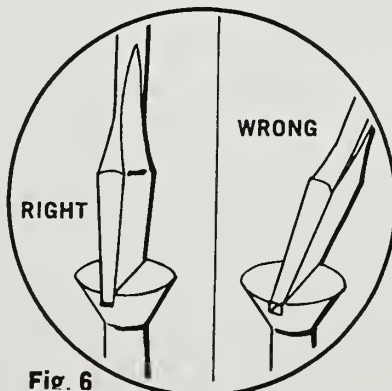


Fig. 6

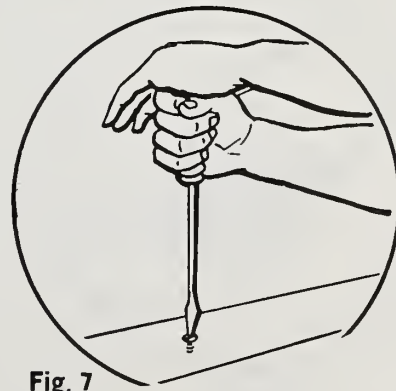


Fig. 7

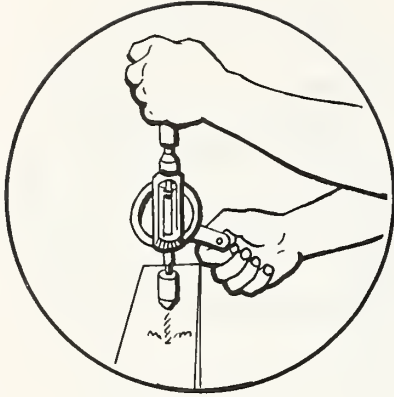


Fig. 8

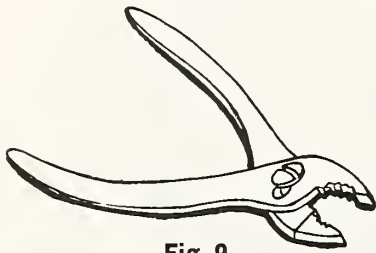


Fig. 9

- It's easier to put a screw into wood if you make a hole first with a nail or drill. (Fig. 8) Rub wax or soap on the screw threads to make it go in easier.

PLIERS

A slip joint pliers can be used for many jobs around the house. (Fig. 9)

- Use pliers to hold a nut while you turn a bolt with a screwdriver. (Fig. 10)
- Use it to remove nails or brads. Pull the nail out at the same angle it was driven in. Use small blocks under the pliers if you need leverage. (Fig. 11)
- Use it to bend or cut wire or to straighten a bent nail. (Fig. 12)
- Use it to turn nuts. Wrap tape or cloth around the nut to avoid scratching it. (Fig. 13)

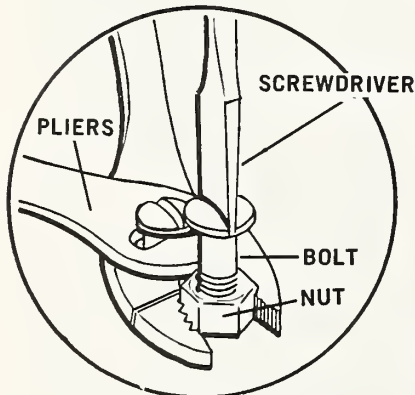


Fig. 10

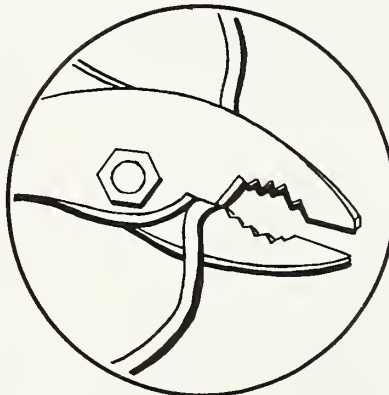


Fig. 12

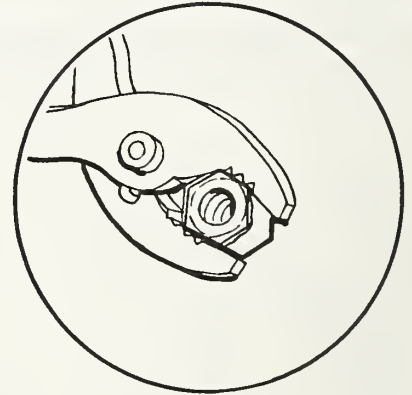


Fig. 13

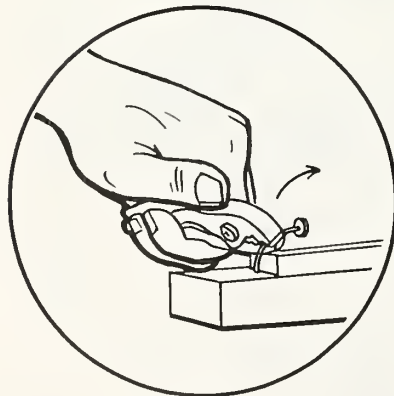


Fig. 11

An **adjustable wrench** (Fig. 14) is adjustable to fit different sizes of nuts. If a nut is hard to loosen, apply a few drops of penetrating oil or kerosene. (Fig. 15) Let it soak a couple of hours or overnight. If the wrench has a tendency to slip off, try turning it over.

HANDSAW

A handsaw (Fig. 16) with about 10 teeth to the inch is good for most household work. (Fig. 17)

Mark where you want to cut. Pull the saw back and forth several times to start a groove. Let the weight of the saw do the cutting at first. If you are sawing a board, it will be easier if you support it and hold it firmly near where you're cutting. (Fig. 18)



Fig. 14



Fig. 15

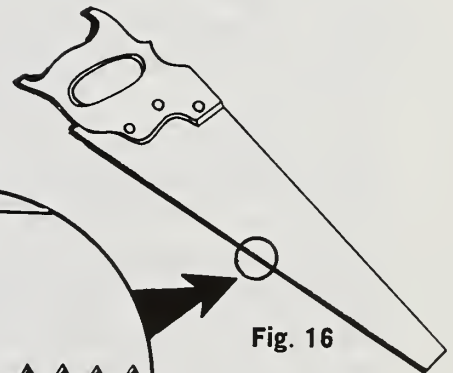


Fig. 16

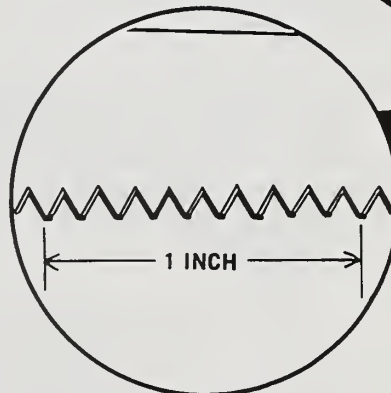


Fig. 17

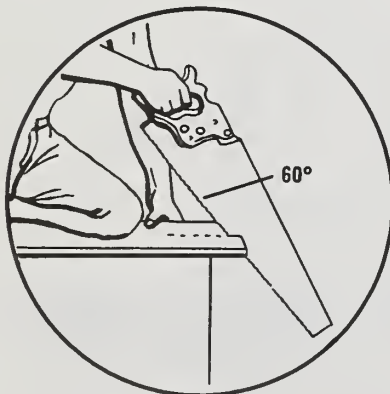


Fig. 18



NAILS, SCREWS, AND BOLTS

Nails, screws, and bolts each have special uses. Keep them on hand for household repairs.

NAILS come in two shapes.

Box nails have large heads. Use them for rough work when appearance doesn't matter. (Fig 1.)

Finishing nails have only very small heads. You can drive them below the surface with a nail set or another nail, and cover them. Use them where looks is important, as in putting up panelling or building shelves. (Fig. 2)

SCREWS are best where holding strength is important. (Fig 3.) Use them to install towel bars, curtain rods, to repair drawers, or to mount hinges. Where screws work loose, you can refill the holes with matchsticks or wood putty and replace them.

Use **molly screws** or **toggle bolts** on a plastered wall where strength is needed to hold heavy pictures, mirrors, towel bars, etc.

Molly screws have two parts (Fig. 4). To install, first make a small hole in the plaster and drive the casing in even with the wall surface. Tighten screw to spread casing in the back. Remove screw and put it through the item you are hanging, into casing, and tighten.

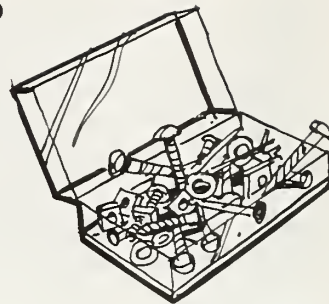


Fig. 1

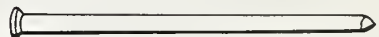


Fig. 2

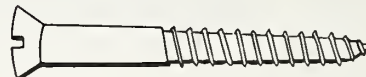
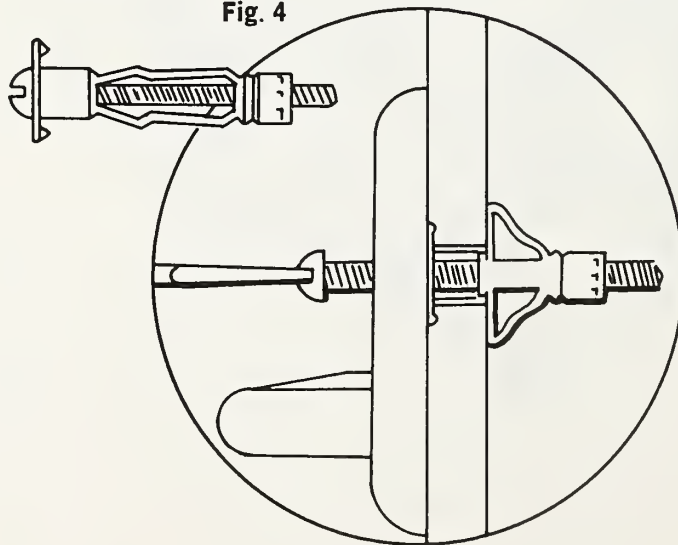


Fig. 3

Fig. 4



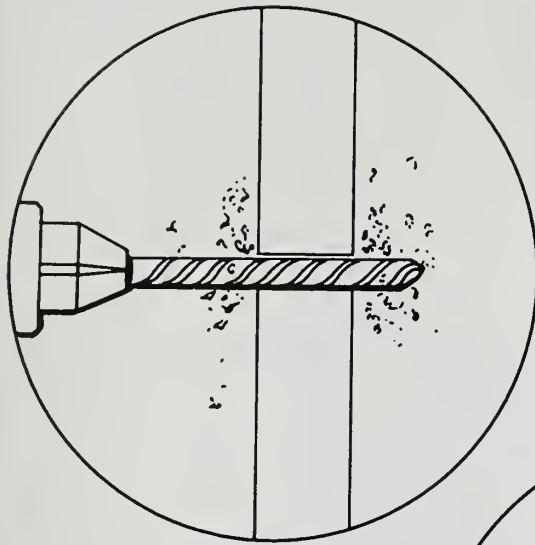


Fig. 5

Toggle bolts. (Fig. 5) Drill a hole in the plaster large enough for the folded toggle to go through. Remove toggle. Put bolt through towel bar or whatever you are hanging. Replace toggle. Push toggle through the wall and tighten with a screwdriver.

Plastic anchor screws (Fig. 6) should be used where you want to attach something to a concrete wall. To install, first make a small hole in the wall and drive casing in even with the wall surface. Put screw through item and into the casing, and tighten.

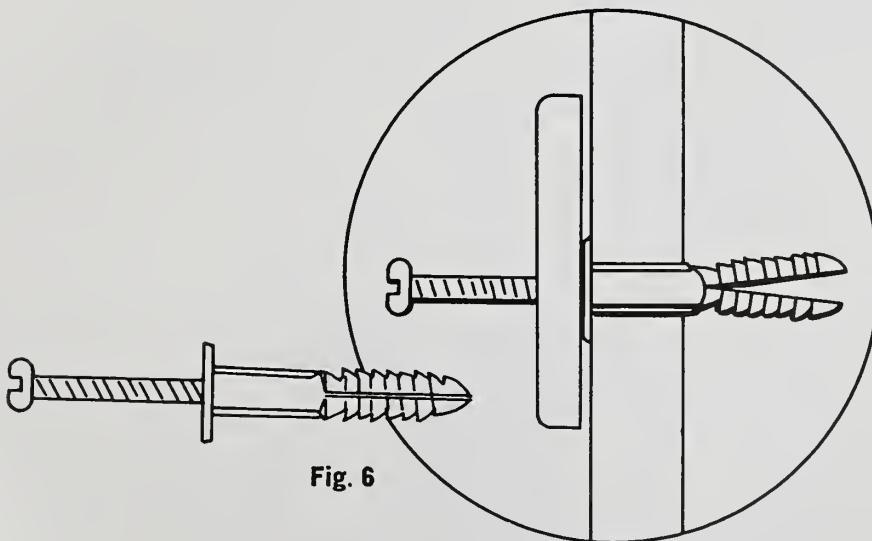
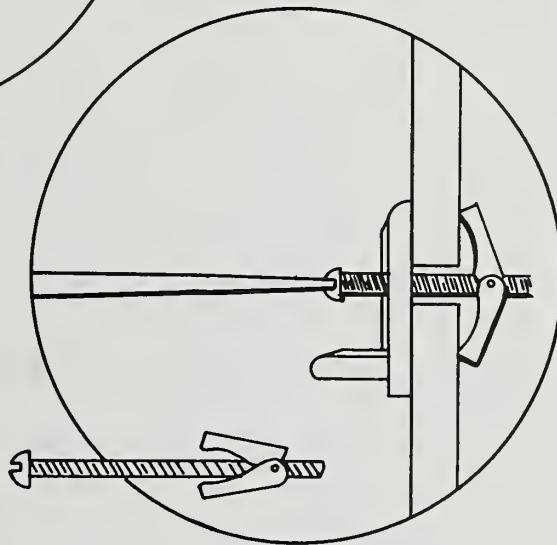


Fig. 6

